

CLAIMS

1. A method for detecting orientation of a component, comprising the steps of:
placing a component having asymmetric upper and lower outer shapes on a reference surface having a reference block;
bringing an outer peripheral part of the component on the reference surface into contact with the reference block; and
identifying the top-bottom orientation of the component based on a gap created between the outer peripheral part of the component and the reference block.
2. The method for detecting orientation of a component according to claim 1, wherein the reference block is tapered in a portion abutting the outer peripheral part of the component.
3. The method for detecting orientation of a component according to claim 1, wherein the reference block has a shape conforming to part or all of a cross-sectional shape of the outer peripheral part of the component in a portion abutting the outer peripheral part of the component.
4. The method for detecting orientation of a component according to any one of claims 1 to 3, wherein
the reference block has a mirror surface in a portion abutting the outer peripheral part of the component.
5. The method for detecting orientation of a component according to any one of claims 1 to 4, wherein
the component is any one of a disk-like component, a cylindrical component, and an annular component.
6. The method for detecting orientation of a component according to any one of claims 1 to 5, wherein
the component is a piston ring.
7. A device for detecting orientation of a component comprising:
a reference surface on which a component having asymmetric upper and lower outer shapes is placed;

a reference block with which an outer peripheral part of the component placed on the reference surface is brought into contact; and

a light source lighting device and a detection camera arranged opposite each other across the reference block.